

WE CLAIM:

1. A method of regulating data channel transmission power of a data communications device during "off-hook" events of a POTS channel handset co-connected with the data communications device, the method comprising steps of:
 - a) determining a value of one or more user control indicators indicative of user-discernible performance qualities;
 - b) calculating a data channel transmission power level using the value of the one or more user control indicators;
 - c) saving the calculated power level in a memory of the communication device; and
 - d) setting the data channel transmission power in response to the calculated power level during an off-hook event associated with POTS channel handset.
2. The method as claimed in claim 1 wherein the step of calculating comprises calculating an upstream power reduction value and a downstream power reduction value.
3. The method as claimed in claim 1 wherein the step of calculating further comprises calculating a downstream power reduction value.

4. The method as claimed in claim 1 wherein a step of setting includes a step of signaling the downstream power value to a central office with which the data communications device is in communication.
5. The method as claimed in claim 1 further including a step of determining a default off-hook power level and wherein the step of calculating is responsive to the default off-hook power level.
6. The method as claimed in claim 1, wherein the user-discernible performance qualities include at least one of: data transmission speed of the communication device; audible interference in the POTs channel handset; and a user prioritization between data channel and POTs channel performance.
7. The method as claimed in claim 1, wherein the step of determining a value includes steps of:
 - a) providing to a user a means for inputting a selected value of the user control indicators; and
 - b) receiving the user's selected value.
8. The method as claimed in claim 4, wherein the step of receiving is performed during an off-hook event of the POTs channel handset.
- ~~9.~~ A method of controlling audible interference in a POTs channel handset induced by data channel transmission power of a co-connected xDSL

communications device, the method comprising the steps of:

- a) defining at least one user-selectable attribute indicative of at least one user-discernible performance quality;
- b) monitoring the at least one attribute for a change in state;
- c) calculating a level of data transmission power on the basis of the at least one attribute;
- d) storing the calculated power level in a memory of the communication device; and
- e) during an off-hook event of the POTS handset, controlling the data channel transmission power of the communications device in accordance with the saved power level.

10. The method as claimed in claim 8 wherein the step of calculating comprises calculating an upstream power reduction level.
11. The method as claimed in claim 10 wherein the step of calculating further comprises a step of calculating a downstream power reduction level.
12. The method as claimed in claim 9 wherein the step of controlling further includes a step of signaling the downstream power value to a central office with which the data communications device is in communication.

13. The method as claimed in claim 9, wherein the user-discernible performance quality includes at least one of: data transmission speed of the communication device; audible interference in the POTS channel handset; and a user prioritization between data channel and POTS channel performance.
14. The method as claimed in claim 9, wherein the step of monitoring includes steps of:
- a) providing an interface to permit a user to input a selected value for the at least one user-selected attribute; and
 - b) receiving the user's selected value.
15. The method as claimed in claim 14, wherein the step of receiving is performed during an off-hook event of the POTS handset.
16. The method as claimed in claim 14, wherein the step of providing an interface includes a step of presenting to the user a default value for the user-selected attribute and the step of calculating is responsive to the default value.
17. A computer program for controlling audible interference in a co-connected POTS channel handset induced by data channel transmission power utilized by customer premises equipment (CPE) for digital subscriber line (DSL), comprising:
- a) instructions for generating and displaying an interface for receiving at least one user-

selectable attribute indicative of at least one user-discernible performance quality;

- b) instructions for calculating a level of data transmission power on the basis of the at least one attribute;
- c) instructions for storing the calculated power level; and
- d) instructions for detecting an off-hook event of the POTs handset and, in response to detecting an off-hook event, for controlling the data channel transmission power of the communications device in accordance with the saved power level.

- 18. The computer program as claimed in claim 17 wherein the program further calculates an upstream power reduction level.
- 19. The computer program as claimed in claim 18 wherein the program further calculates a downstream power reduction level.
- 20. The computer program as claimed in claim 18 further including instructions to operate the CPE to signal the downstream power value to a central office with which the data communications device is in communication.
- 21. The program as claimed in claim 17, wherein the user-discernible performance quality includes at least one of: data transmission speed of the communication device; audible interference in the POTs channel

handset; and a user prioritization between data channel and POTs channel performance.

22. The program as claimed in claim 17, wherein the program receives the user-selected attribute in response to a user input.
23. The program as claimed in claim 22, wherein the program retrieves the attribute from storage during each off-hook event of the POTs handset.
24. The program as claimed in claim 17, further comprising:
 - a) instructions for calculating a default power level for controlling audible interference in the POTs channel;
 - b) instructions for storing the default power level in a memory;
 - c) instructions for communicating the default power level to the CPE; and
 - d) during an off-hook event and in the absence of a user selected attribute, instructions for controlling the data channel transmission power in accordance with the default power level.
25. A method of regulating data channel transmission power of a data communications device during "off-hook" events of a POTs channel handset co-connected with the data communications device, the method comprising a steps of:

- a) calculating default data channel transmission power levels using parameters based on a target minimum data rate, a default audible noise protection level, and linearity measures obtained using a line probe;
- b) saving the calculated data default data channel transmission power levels in a memory; and
- c) applying the default data channel transmission power levels in the absence of a user preference indication that overrides the default.